

--Referring to Figure 4, a transformer tank 10 is shown that includes a transformer core and windings 15 immersed in a dielectric insulating fluid 18. To reduce the leakage of air into the tank, one such modification relates to the volume of the tank headspace 20. Current ANSI/IEEE C57 series standards, for example, require distribution transformer tanks to remain sealed over a top oil temperature range of from -5°C to 105°C for pole-mounted and pad-mounted designs and over 100°C top oil range for substation transformers. Outside this range the tank is typically vented to avoid damage to the tank or related equipment. According to the present invention, the headspace volume is increased so that the temperature range over which the tank remains sealed increases correspondingly, thus reducing the probability of oxygen (air) leaking into the tank. Specifically, the present tank preferably includes a headspace volume sufficient to allow the tank to remain sealed from -20°C to 115°C.--

REMARKS

In this amendment the specification and drawings are amended to more precisely describe the inventive subject matter. The revised drawings are attached, with the proposed amendments in red.

Fig. 3 is amended to clearly show the tank headspace 20 and the dielectric fluid 18. These amendments are carried over from Fig. 1 and do not constitute new matter.

Fig. 4 and the specification are also amended to clearly describe and illustrate the dielectric fluid 18 surrounding the core/coil assembly 15. The transformer core/coil assembly is mentioned on page 17, line 12, and actually appears in phantom in Fig. 4 as originally filed. The drawing change made in this response notes the presence of the core/coil assembly in Fig. 4, and for this reason Applicants respectfully submit that the amendment to the drawings does not constitute new matter.

Formal drawings are attached that incorporate the changes detailed above.

Applicants respectfully request that this application be passed to issue with the above amendments to the specification and drawings.

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If questions remain, please contact the undersigned. Please apply any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

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Version with markings to show changes made

In the specification:

Paragraph beginning at page 17, line 12, has been amended as follows:

Referring now to Figure 1, a transformer tank 10 typically comprises a tank body 12, a tank cover 14 bolted or welded to tank body 12 and sealed with gasket 16. Tank body 12 is sealed. Tank 10 houses the transformer core and windings (not shown in Fig. 1) or other electrical equipment, immersed in a dielectric fluid 18. The space between the surface of the fluid and the tank cover is the tank headspace 20. According to one embodiment of the present invention, a polymer container 22 containing an oxidation reducing composition is mounted in the headspace of the tank, preferably on the inside of the tank cover as shown in Figure 1. As set forth above container 22 is a pouch or bag encasement constructed of a oxygen permeable film.

Paragraph beginning at page 19, line 1, has been amended as follows:

Referring to Figure 4, a transformer tank 10 is shown that includes a transformer core and windings 15 immersed in a dielectric insulating fluid 18. To reduce the leakage of air into the tank, one such modification relates to the volume of the tank headspace 20. Current ANSI/IEEE C57 series standards, for example, require distribution transformer tanks to remain sealed over a top oil temperature range of from -5°C to 105°C for pole-mounted and pad-mounted designs and over 100°C top oil range for substation transformers. Outside this range the tank is typically vented to avoid damage to the tank or related equipment. According to the present invention, the headspace volume is increase so that the temperature range over which the tank remains sealed increases correspondingly, thus reducing the probability of oxygen (air) leaking into the tank. Specifically, the present tank preferably includes a headspace volume sufficient to allow the tank to remain sealed from -20°C to 115°C.